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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/305,984ADATE: 02/10/2000  
TIME: 14:53:04

Input Set: I305984A.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

ENTERED

P.S

1 <110> APPLICANT: Novak, Rodger  
2 Toumanen, Elaine  
3 <120> TITLE OF INVENTION: NOVEL ANTIBIOTICS AND METHODS OF USING THE SAME  
4 <130> FILE REFERENCE: 1340-1-016N  
5 <140> CURRENT APPLICATION NUMBER: US/09/305,984A  
6 <141> CURRENT FILING DATE: 1999-05-05  
7 <150> EARLIER APPLICATION NUMBER: 60/084,399  
8 <151> EARLIER FILING DATE: 1998-05-06  
9 <160> NUMBER OF SEQ ID NOS: 54  
10 <170> SOFTWARE: PatentIn Ver. 2.0  
11 <210> SEQ ID NO 1  
12 <211> LENGTH: 75  
13 <212> TYPE: DNA  
14 <213> ORGANISM: Streptococcus pneumoniae  
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17 gcaagagact ataat 75  
18 <210> SEQ ID NO 2  
19 <211> LENGTH: 25  
20 <212> TYPE: PRT  
21 <213> ORGANISM: Streptococcus pneumoniae  
22 <400> SEQUENCE: 2  
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24 1 5 10 15  
25 Asp Lys Arg Pro Ala Arg Asp Tyr Asn  
26 20 25  
27 <210> SEQ ID NO 3  
28 <211> LENGTH: 75  
29 <212> TYPE: DNA  
30 <213> ORGANISM: Artificial Sequence  
31 <220> FEATURE:  
32 <223> OTHER INFORMATION: Description of Artificial Sequence: Encodes  
33 modified Streptococcus Pneumonia peptide  
34 <400> SEQUENCE: 3  
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36 gcaagagact ataat 75  
37 <210> SEQ ID NO 4  
38 <211> LENGTH: 25  
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40 <213> ORGANISM: Artificial Sequence  
41 <220> FEATURE:  
42 <223> OTHER INFORMATION: Description of Artificial Sequence: Modified  
43 Streptococcus Pneumonia peptide  
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51 <212> TYPE: DNA  
52 <213> ORGANISM: Artificial Sequence  
53 <220> FEATURE:  
54 <223> OTHER INFORMATION: Description of Artificial Sequence: Encodes  
55 modified Streptococcus Pneumonia peptide  
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58 gcaagagacg ctaat 75  
59 <210> SEQ ID NO 6  
60 <211> LENGTH: 25  
61 <212> TYPE: PRT  
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63 <220> FEATURE:  
64 <223> OTHER INFORMATION: Description of Artificial Sequence: Modified  
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69 Asp Lys Arg Pro Ala Arg Asp Ala Asn  
70 20 25  
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83 1 5 10  
84 <210> SEQ ID NO 9  
85 <211> LENGTH: 33  
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94 <400> SEQUENCE: 10

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103 aaaaggccag caagagacta taat 84  
104 <210> SEQ ID NO 12  
105 <211> LENGTH: 28  
106 <212> TYPE: PRT  
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111 Leu Leu Ala Asp Lys Arg Pro Ala Arg Asp Tyr Asn  
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115 <212> TYPE: DNA  
116 <213> ORGANISM: Streptococcus pneumoniae  
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119 ctggttatct gccttcattt agctattttat tttcttttc cttcgactta tctgagtcatt 120  
120 cgtcaggaaa ccattggtca aaaggcaaca gccattgccc agtccctaga agggaaagat 180  
121 aggcagagta tcgagcaagt gtttagacttg tattccaga ctatgtat caaggggacc 240  
122 gtcaaagggtg agatgaccga ggacaaggta gaagtcaagg acagtctcc tctggacaca 300  
123 gaccgcccaga caacctctct ctttatttag gaggcgagg tgaaaacgca agacgggttgt 360  
124 actatgattc tccagtttct agcttccatg gatttacaaa aggaagcgga gcaaatcagt 420  
125 ctccagtttc ttccctatac cttgctggcc tcctttctga ttccctttt ggtggcctac 480  
126 atctacgctc ggactattgt tgcaccgatt ttggaaatca agcgggtgac ccgtcgatg 540  
127 atggacctgg attcccaagt gcgattgcgc gtggattcta aggatgagat aggtaatctc 600  
128 aaggaacaaa tcaatagcct ctaccagcat ctcttgactg ttattgcggta 660  
129 aagaatgaag ccattctcca gctggagaag atgaaggctg aattcctacg aggagcttct 720  
130 catgaattga aaacaccgct ggctagtttggaaaatctaa tcgaaaatat gagagagaat 780  
131 atcggtcggt ataaggatag agaccagtat ctggagatgg ccttggggat tggatgaa 840  
132 ctcaatcacc atgttctgca gatactttcc ctctttctg tgcaggaatt gcgagatgat 900  
133 agggaaacaa ttgacctctt ccagatgacg caaaatctgg tcaaagatta tgcttgcta 960  
134 gccaaggaaa gagagctcca gatagacaat agttgaccc atcagcaggc ttatctaaac 1020  
135 ccatcagtta tgaaggatgt tctttctaat ctcatcagca atgccatcaa gcactctgtt 1080  
136 ccaggtggct tagttcgaat tggagaaaga gaaggagaac tttttatcga aaatagctgt 1140  
137 agctcagagg aacaagaaaa actagccca gatagacaat agttgaccc acaatgcagc tcgcaagg 1200  
138 aaggggctgt gtatggggct ctttgcgtt aagagtctat tagaacatga aaaattagct 1260  
139 tatcgttcg agatggagga gaatagtttaccttca tagatttcc aaaagtcgtc 1320  
140 caagactag 1329  
141 <210> SEQ ID NO 14  
142 <211> LENGTH: 442  
143 <212> TYPE: PRT  
144 <213> ORGANISM: Streptococcus pneumoniae

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/305,984ADATE: 02/10/2000  
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 149 20 25 30  
 150 Phe Pro Ser Thr Tyr Leu Ser His Arg Gln Glu Thr Ile Gly Gln Lys  
 151 35 40 45  
 152 Ala Thr Ala Ile Ala Gln Ser Leu Glu Gly Lys Asp Arg Gln Ser Ile  
 153 50 55 60  
 154 Glu Gln Val Leu Asp Leu Tyr Ser Gln Thr Ser Asp Ile Lys Gly Thr  
 155 65 70 75 80  
 156 Val Lys Gly Glu Met Thr Glu Asp Lys Leu Glu Val Lys Asp Ser Leu  
 157 85 90 95  
 158 Pro Leu Asp Thr Asp Arg Gln Thr Thr Ser Leu Phe Ile Glu Glu Arg  
 159 100 105 110  
 160 Glu Val Lys Thr Gln Asp Gly Gly Thr Met Ile Leu Gln Phe Leu Ala  
 161 115 120 125  
 162 Ser Met Asp Leu Gln Lys Glu Ala Glu Gln Ile Ser Leu Gln Phe Leu  
 163 130 135 140  
 164 Pro Tyr Thr Leu Leu Ala Ser Phe Leu Ile Ser Leu Leu Val Ala Tyr  
 165 145 150 155 160  
 166 Ile Tyr Ala Arg Thr Ile Val Ala Pro Ile Leu Glu Ile Lys Arg Val  
 167 165 170 175  
 168 Thr Arg Arg Met Met Asp Leu Asp Ser Gln Val Arg Leu Arg Val Asp  
 169 180 185 190  
 170 Ser Lys Asp Glu Ile Gly Asn Leu Lys Glu Gln Ile Asn Ser Leu Tyr  
 171 195 200 205  
 172 Gln His Leu Leu Thr Val Ile Ala Asp Leu His Glu Lys Asn Glu Ala  
 173 210 215 220  
 174 Ile Leu Gln Leu Glu Lys Met Lys Val Glu Phe Leu Arg Gly Ala Ser  
 175 225 230 235 240  
 176 His Glu Leu Lys Thr Pro Leu Ala Ser Leu Lys Ile Leu Ile Glu Asn  
 177 245 250 255  
 178 Met Arg Glu Asn Ile Gly Arg Tyr Lys Asp Arg Asp Gln Tyr Leu Gly  
 179 260 265 270  
 180 Val Ala Leu Gly Ile Val Asp Glu Leu Asn His His Val Leu Gln Ile  
 181 275 280 285  
 182 Leu Ser Leu Ser Ser Val Gln Glu Leu Arg Asp Asp Arg Glu Thr Ile  
 183 290 295 300  
 184 Asp Leu Leu Gln Met Thr Gln Asn Leu Val Lys Asp Tyr Ala Leu Leu  
 185 305 310 315 320  
 186 Ala Lys Glu Arg Glu Leu Gln Ile Asp Asn Ser Leu Thr His Gln Gln  
 187 325 330 335  
 188 Ala Tyr Leu Asn Pro Ser Val Met Lys Leu Ile Leu Ser Asn Leu Ile  
 189 340 345 350  
 190 Ser Asn Ala Ile Lys His Ser Val Pro Gly Gly Leu Val Arg Ile Gly  
 191 355 360 365  
 192 Glu Arg Glu Gly Glu Leu Phe Ile Glu Asn Ser Cys Ser Ser Glu Glu  
 193 370 375 380  
 194 Gln Glu Lys Leu Ala Gln Ser Phe Ser Asp Asn Ala Ser Arg Lys Val

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195 385 390 395 400  
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 197 405 410 415  
 198 Glu Lys Leu Ala Tyr Arg Phe Glu Met Glu Glu Asn Ser Leu Thr Phe  
 199 420 425 430  
 200 Phe Ile Asp Phe Pro Lys Val Val Gln Asp  
 201 435 440  
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 203 <211> LENGTH: 657  
 204 <212> TYPE: DNA  
 205 <213> ORGANISM: Streptococcus pneumoniae  
 206 <400> SEQUENCE: 15  
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 tctagctatg aggtggccct ggtttactg gatatccaga tgcccaagct caacggctta 180  
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 cctttctccc tctccctttt aaaagtgagg gtggacgcga ttttcaagcg ctactacgt 360  
 acaggacgaa tctttctta caaggatacc aagggtggact ttgaaagcta cagtgcagc 420  
 ctcgcaggc aagaagtgcc tatcaatgcc aaagagttgg aaattctgga ctatctatg 480  
 aaaaatgaag gccgggcctt gactcgatct cagattatcg atgccgtctg gaaagcgaca 540  
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 219 <211> LENGTH: 218  
 220 <212> TYPE: PRT  
 221 <213> ORGANISM: Streptococcus pneumoniae  
 222 <400> SEQUENCE: 16  
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 Ser Asp Tyr Leu Thr Asp Cys Gly Tyr Glu Thr Ile Glu Ala Ala Asp  
 225 20 25 30  
 Gly Gln Glu Ala Leu Glu Gln Phe Ser Ser Tyr Glu Val Ala Leu Val  
 227 35 40 45  
 Leu Leu Asp Ile Gln Met Pro Lys Leu Asn Gly Leu Glu Val Leu Ala  
 229 50 55 60  
 Glu Ile Arg Lys Thr Ser Gln Val Pro Val Leu Met Leu Thr Ala Phe  
 231 65 70 75 80  
 Gln Asp Glu Glu Tyr Lys Met Ser Ala Phe Ala Ser Leu Ala Asp Gly  
 233 85 90 95  
 Tyr Leu Glu Lys Pro Phe Ser Leu Ser Leu Leu Lys Val Arg Val Asp  
 235 100 105 110  
 Ala Ile Phe Lys Arg Tyr Tyr Asp Thr Gly Arg Ile Phe Ser Tyr Lys  
 237 115 120 125  
 Asp Thr Lys Val Asp Phe Glu Ser Tyr Ser Ala Ser Leu Ala Gly Gln  
 239 130 135 140  
 Glu Val Pro Ile Asn Ala Lys Glu Leu Glu Ile Leu Asp Tyr Leu Val  
 241 145 150 155 160  
 Lys Asn Glu Gly Arg Ala Leu Thr Arg Ser Gln Ile Ile Asp Ala Val  
 242 165 170 175

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa. ✓

Input Set: I305984A.RAW

## Line ? Error/Warning

## Original Text

821 W "N" or "Xaa" used: Feature required  
859 W "N" or "Xaa" used: Feature required  
861 W "N" or "Xaa" used: Feature required  
912 W "N" or "Xaa" used: Feature required  
914 W "N" or "Xaa" used: Feature required

Asp Lys Arg Pro Ala Arg Asp Xaa Asn  
Arg Lys Glu Phe His Xaa Xaa Xaa Xaa Xaa X  
Lys Arg Pro Xaa Arg Asp Tyr  
Met Xaa Xaa Xaa Xaa Asn Val Leu Ser X  
Xaa Xaa Xaa Ala Xaa Xaa Xaa Asn